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Federal - State Cooperative
Snow Surveys and Water Supply Forecasts
for

OREGON



Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U.S. Forest Service, National

Park Service and other Federal, State and local organizations.

OREGON AGRICULTURAL EXPERIMENT STATION

-AS OF-

FEB. 1, 1954

TO RECIPIENTS OF COOPERATIVE SNOW SURVEY AND WATER SUPPLY FORECAST REPORTS:

Forecasts by U. S. Weather Bureau of total annual streamflow October-September, inclusive, at more than 300 gaging stations are issued monthly January through May in the publication WATER SUPPLY FORECASTS FOR THE WESTERN UNITED STATES.

Weather Bureau forecasts of runoff presented in that bulletin are computed from procedures based on mathematical analysis of the relation between precipitation and runoff.

The Weather Bureau bulletins may be secured by writing to:

Hydrologist in Charge River Forecast Center U. S. Weather Bureau 712 Federal Office Building Kansas City 6, Missouri

For current information on local river and flood conditions, reference should be made to the appropriate River District Office listed below:

Meteorologist in Charge......Columbia River and Weather Bureau Office 320 Custom House Portland 9, Oregon

tributaries below Grand Coulee Dam, except the Snake River and tributaries.

Meteorologist in Charge.....Oregon and California Weather Bureau Airport Station Box 1072 Medford, Ore.

Coast drainage, from and including Umpqua River Basin, southward to and including Klamath River and tributaries; the Great Basin in Oregon

State of Oregon

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS AND WATER FORECASTS

FOR

OREGON

Report Prepared by

W. T. Frost, Hydraulic Engineer and Manes Barton, Assistant Water Forecaster

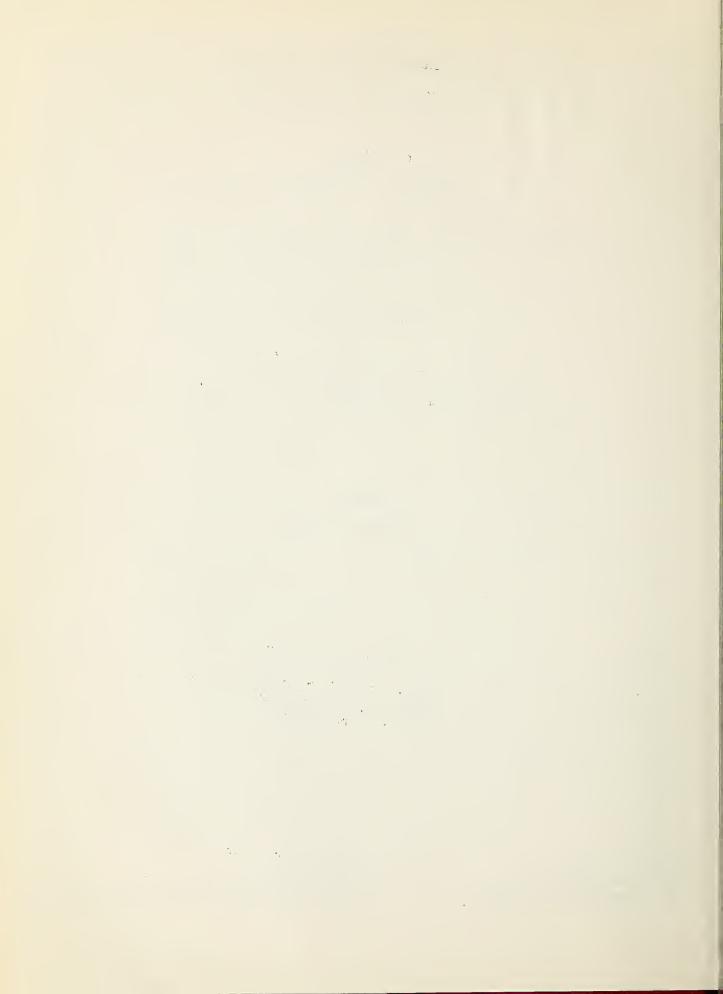
Issued

February 9, 1954

Soil Conservation Service and Oregon Agricultural Experiment Station 209 S. W. 5th Avenue Portland 4, Oregon

Harold E. Tower
State Conservationist
Soil Conservation Service

F. Earl Price
Director
Oregon Agricultural Experiment Station



er Name Location Elev. Sec.Iwp.Rge.	UPPER COLDIBIA DRAINAGE	CHANTE STATE	See All Berlin	7 Fry Canyon 51 45M 54E 8700 5 Gald Greek 31 45M 56E 5500	9 Jack Creek, Lower 18 42H 553	B Rodeo Flat 35 43N 53E	12 Gilver City 8 55 5W 15 South Mountain No. 2 35 75 5W	12 Taylor Canyon 55 59N 53E	The following courses are adjacent to but not on Owybee Drainage and	partially reflect snow conditions on this watershed.)	1 Bear Creek 31 46N 58E	1 Buokskin, Lower 25 46N 59B 2 Buokskin, Upper 11 45N 59R	2 Fox Creek 55 45N 58E 4 Granits Peak 22 44N 59E	3 Martin Creek 18 44N 40E 6700 8 Midas 18 39N 46E 7200	11 Tremewan Ranch 9 59H 55E 4 76 Creek 6 44N 58E	MALHEUR RIVER	21 158 35R	24 185 34E	Rook Spring 23 168 528 5100 SHorton Weter Water Appendix 218 347 4800	UNT RIVER	92 071 31	Blue Mountain Summit 6 128 558 5098 Typton 34 108 35\frac{1}{2} \frac{1}{2} \f	POWDER RIVER	Anthony Lake 18 7S 37B	Dools Bountain 52 113 408 5430 F830 F830 F830 F830 F830 F830 F830 F8	Goodrioh lake 54435 8S 38E	PINE CREEK	Sebnetder Meadowe 35 6S 45E 5400	IMMAHA RIVER	Coverdale 22 5S 47B 4250	GRANDE RONDE RIVER	Ansroid Lake No. 1 15 4S 45E	Ansrold lake No. 2 Lb 45 405 Dearwork Reservoir 8 55 378 Communication 73 68 68 878	County Line 28 4S 54E	Summit Springs 28 33 418 5850 Summit Springs 9 83 778 6000	Taylor Green		Sarating World	SNOW COURSES
Number			į	Neve	Nev.	Nev.	Ida.	Ne v.	t E	ad do	Nev.	Nev.	Neve	Nev.	Nev.		155	137	12 E	}	143	141		155	156	157		181		171		181	188	189	1864	8		NO IN	
Name Location Elev. Sec.Twp.Rge.	LOWER COLUMBIA DRAINAGE	WALLA WALLA RIVER	Tollgate 32 4N 56E 5070	UMATILLA RIVER	Engrant Springe 29 IN 35B 5925	24425 1S 35E	JOHN DAY RIVER	55 4S 29B	12S 50B 11S 54B	Gold Center 21 9S 35E 5340 Olive Lake 14 9S 352E 5000	45 34B	SROOKED RIVER	14 158 25E	Marks Creek 25 128 198 4540 Others Marks 21 138 208 5200	8 15S 25B	UPPER DESCRUTES RIVER	14 15S 9B	7 235 6E	24S 6B	25 20S 6B	21 18S 9B	Tangent 28 168 108 5400 Three Greeks Meadows 3 178 9K 5600 Willamette Pass 21 24S 528 5500	LOWER DESCHUTES RIVER	29 45 98	Hogg rase 24 1.53 72K 475b Rock Greek 1 4S 10E 4200	HOOD RIVER	2 2S 10B	Apple	9	A KK	Phlox Point-Mt. Hood 5 5S 9E 5600 Still Creek 25 5S 9EE 3700							INDEA . ODECOM	INDEA 10 OREGO
Number			21.2		222	221		241	248A 244	249 245	248 247B		3.43	344	342						324A	323 323		\$51	352		451	434 434	ž		451								
Number Name Location Elev. Sec.Iwp.Rge.	INTERIOR DALVAGE	WARNER LAKE	911A Camae Creek 5 598 21E 5720	GUANO IAKB	Nev. 1 Bald Mountain 17 45N 21E 5720	CHEMAUCAN RIVER	922 Mil Creek 1 545 17B 8200	SILVER LAIB	942 Silver Creek 25626 29S 13B 4900	HARNEY BASIN	Figh (r-eek 4 53S 53E	Idlewild Cemp 55 20S 51E 1zee Summit 28 188 29E	951 Silvies 35 328 8900 965 Snow Mountain 1 198 258 8300	MODERNI TT CREEK	Neve 6 Disaster Peak 8 47N 34E 5500	GOOGE TAKE BASTN		8II quartz Mountain 2 38S 1515 5520	OREGON & CALIFORNIA COAST DRAINAGE	UMPQUA RIVER	Diamond Lake 29 27S 6B	742 No. umgqua nr. lake Gr. 19 255 52 4215 741 Trap Creek 1 275 42 800 744 Windigo Pass 20 258 88 5800	ROGUE RIVER	Althouse 17 41S 7FF	Big Red Mountain 31 .406 lW Hille Cresk Divide 50 368 5B	Fish lake 3 37S 4E Fournile lake 9 58S 5E	Grayback Peak 9 40S 5W Hobert Lake 17 40S 5E	723 Hyatt Frairie Reservoir 15 39S 3E 4900 7210 Little Red Mountain 25 40S 2W 6500	Soragg Mountain 9 47N 10W Seven Lakes No. 1 3 545 5E	Seven Lakes Mo. 2 25 35S 5E 6ilver Burn 30 30S 4E	Siskiyou Summit 17 40S 2E South Fork Canal 12 35S 3E	Wagner Butte 1 40S 1M Whaleback 5 51S 2B	KLAMATH LAKB BASIN	and other of	001 Aunt 5Pring 19 315 05 0010 834 Chemistra 21 278 85 4760 621f. Cronder Flat 50 47N 118 5200	Gerber 12 598 13B Lake of the Woods 11 375 5B	Park Headquarters 8 513 5E Strawberry 4 40S 16E	Sun Mountain 22 528 728	Taylor Butte 15 33S 11B
Name Location Elev. Sec.IWp.Rge.	HILLAURTTE RIVER BASIN	CLACKAMAS RIVER	Big Bottom 25 68 78	LAKE Harrist 4 53 73 2045 Peavine Ridge 14415 53 73 8500	SANTIAM MATTHES		Breitenbush 21 98 78 Detroit 1108 58	Merion Forks 28 118 78	Mill City 29 98 58 626 Santiam Junction 14 158 78 3990	Whitewater Bridge 28 105 7E	MCKENZIE RIVER	Dead Horse Grade 15 16S 7E Lost Creek Ranch 24 16S 5E	McKenzie Bridge 13 165 5B	White Branch Slide 15 15S	MIDDLE FORK WILLAMETTE RIVER	Mcredie Springs 36 218 4B	Meridian Dem 15 19S 1W Oakridze 16 21S 3E		Waldo Lake	COAST FORK WILLAMETTE RIVER	Champion Comes 12 255 1E	1 Laying Greek Res. 31 213 118 1200 10 Lind Park 1 2 22 12 118 1740 16 Renver Creek 1 2 223 118 1740	MARY'S RIVER	Mary 10 Pool						THE CALIFORNIA CRESCON POWER CONFANYIS SNOW STATIONS	KLAMATH LAKE FASIN (Oregon & Calif. Coast Drainage)	Beatty (COPCO) 22 358 12R 4300	Bly 101 Ranoh (COPCO) 22 35S 14E Chemnit (COPCO) 21 27S 8B	Chiloquin (COPCO) 34 345 7E	Fort Flame (C0PCo) 25 728 4150 Entri Entri Lodge (C0PCo) 3 565 58 4200	Kirk (COPCO) 1 53S 7B Lake of the Woods (COPCO) 15 37S 5B	Yearsey (COPCO) 20 515 11E	(moral distribution of the control o	Quartz Mountain (COFCO) 55 573 16B 5504
Number Name	HILLAURTTE	CLACKAM		595 Lake Harrist 591 Peavine Ridge					557 Mill City 552 Sentian Junction	Whitewater				535 White Branch Slide	MIDDLE FORK WI	Mocr		524 Railroad Overpass		COAST FORK WIL		5211 LAYING Greek Re.S. 5210 Lund Park 529 Weaven Creek								POWER COMPANYS	KLAMATH LAKE BASIN (Orego	1 Beatty (COPCO)			5 Fort Klamath (COPC 8 Earnimen Lodge (CC				

PRELIMINARY WATER SUPPLY OUTLOOK FOR OREGON

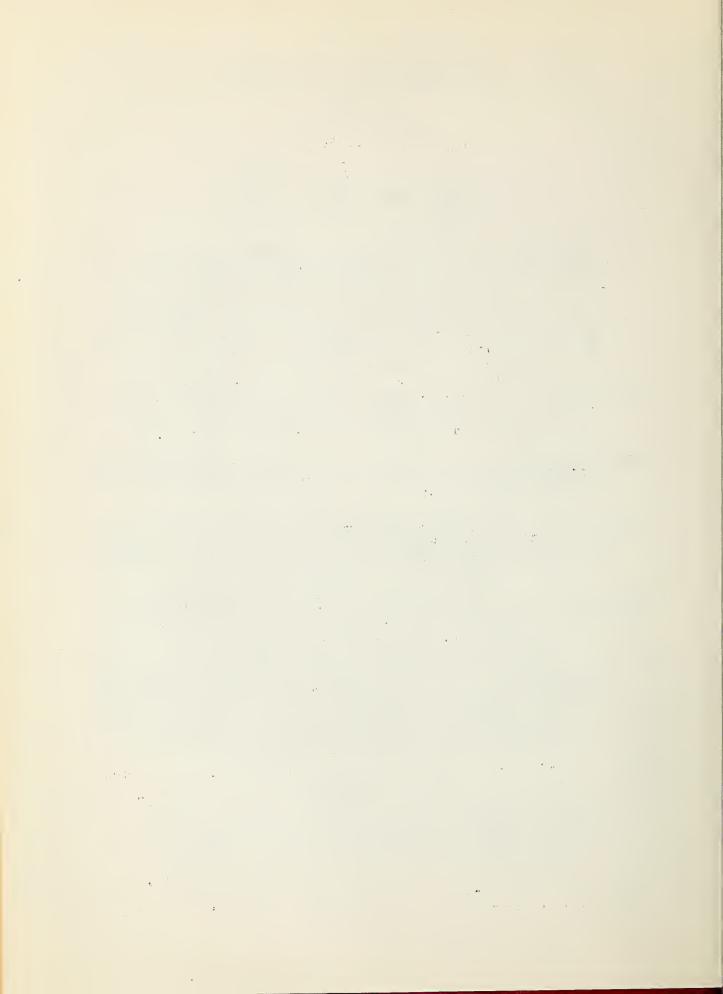
February 1, 1954

Outlook for Oregon's 1954 water supplies is "good" to "excellent"

- SNOW-COVER: Water content of mountain snow-cover averages 141 percent normal on 67 snow courses compared with 115 percent normal a year ago. Snow surveys above 5000 feet average 133 percent normal. Below 5000 feet the snow-cover is now 156 percent normal whereas it was only 67 percent normal just a month ago. Water in the snow-cover is above normal throughout the state and varies from 165 percent normal on the Rogue watershed to a low of 71 percent normal on the headwaters of the Cwyhee River in Nevada.
- SOIL-MOISTURE: Soils on mountain watersheds are well wetted under present snow-cover except for the extreme eastern portion of the state where fall precipitation was short.
- RESERVOIRED WATER: Total water stored in 22 reporting reservoirs is 27 percent greater than the 10 year average (1942-51) and 5 percent less than last year at this date.
- PRECIPITATION: State-wide precipitation¹, September through January, averages 113 percent of the 10 year average (1942-51). Precipitation varies from a high of 134 percent in Southwestern Oregon to a low of 65 percent in Southeastern Oregon.
- STREAMFLOW: Outlook for April-September streamflow in 1954 is favorable assuming normal winter conditions prevail through February and March, Preliminary forecasts (see pages 2, 3, 4) indicate above normal flows can be expected from the Cascade Lountains and in the Goose Lake, Warner Lake, Malheur, John Day, Wallowa and Imnaha drainages. Late season water supplies in the Grande Ronde and Owyhee basins will be short in those areas where no stored water is available. Discharge of the John Day and Umpqua Rivers during January has been 178 and 229 percent of the Median².

¹From preliminary data furnished by U. S. Weather Bureau, Portland, Oregon

²From preliminary data furnished by U. S. Geological Survey, Portland, Oregon



The following summarized runoff forecasts are based on present mountain snow cover and on the assumption that average February and March increase of snow cover will occur. Greater or less than average increase in mountain snow cover during the next two months will correspondingly modify these estimates:

				nflow in		
BASIN AND STREAM	Forecas		,		l Runof	f*10-Yr.
	Apr		10-Yr			Avg.
	Sept.	Period	Avg.	1952	1951	1942-51
NORTHCENTRAL OREGON						
Hood R., nr. Hood River	375.0		129	324.7	358.8	289.6
Hood R., W. Fk., nr. Dee	190.0		117		156.4	
White R., below Tygh Valley	193.0		114	171.2	202.6	
UMATILLA-WALLA WALLA						
Walla Walla R., So. Fk.,						
nr. Milton	70.0		93	85.0		
Umatilla R., nr. Gibbon	74.0		77	103.0	77.2	
Umatilla R., at Pendleton	140.0		74	184.8	138.0	
McKay Cr., nr. Pilot Rock	23.0		72	23,3	17.6	32.0
NORTHEASTERN OREGON						
Grande Ronde R., at La Grande	125.0		62	183.2	165.1	200.7
Catherine Cr., nr. Union	57.0		79	90.6	62.7	72.0
Bear Cr., nr. Wallowa	80.0		109	79.7	56.5	73.3
Lostine R., nr. Lostine	140.0		108	145.8	110.0	-
Hurricane Cr., nr. Joseph	50.0		107	55.3	41.0	46.7
Wallowa R., E. Fk., nr. Joseph	12.2		106	12.6	9.8	11.5
Imnaha R., at Imnaha	340.0		113	424.3	267.5	300.7
Powder R., at Salisbury	59.0		91	88.7	-	
Burnt R., nr. Hereford ³	38.0		84	65.2	43.0	45.1
EASTERN OREGON						
Malheur R., nr. Drewsey	77.0		103	192.2	72.3	74.5
Malheur R., N. Fk., at Beulah	62.0		103	122.0	54.4	60.1
Owyhee Res., net inflow5		400.0ª	79	1556.0	549.6	506.6
John Day R. at Prairie City ⁶	59.0		112		44.3	52.8
John Day R., Mid.Fk.at Ritter	143.0		109	172.6	115.4	•
John Day R., No.Fk., nr. Dale	289.0		108	309.8	255.8	266.4
Strawberry Cr., nr. Prairie Ci	ty 8.0		95	10.5	7.9	8.4

^{*}Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1953 records not available at this time. Co. power canal.

² Includes power plant tailrace.

³ Observed flow plus change in storage in Unity Reservoir.

⁴ Observed flow + change in storage in Agency Valley Reservoir.

From U.S.B.R. records of inflow. 6 Observed flow + Prairie Power Canal.

a March-July

CRecords not available.

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Streamflow Forecasts - February 1, 1954 (Jont'd)

	Se	asonal	Stream	flow in	Thousa	nd A.F.
BASIN AND STREAM	Forecas	t 1954	70	Measured	Runof	f*10-Yr.
•	Apr- Sept.	Other Period	10-Yr. Avg.	1952	1951	Avg. 1942-5]
HARNEY BASIN						
Silvies R., nr. Burns	Not Fo	recast		c ·	116,4	100.4
CENTRAL OREGON						
Ochoco Res., net inflow ⁷ Crescent Cr. at Crescent Lake ⁸ Little Deschutes R., nr. Lapine Odell Cr., nr. Crescent Deschutes R., below Snow Cr. Crane Prairie Res., inflow ⁹ Deschutes R., at Pringle Falls Deschutes R., at Benham Falls Tumalo Cr., nr. Bend ¹² Squaw Cr., nr. Sisters Crooked R., nr. Post	33.0 77.0 148.0 10307.0		61 100 103 107 117 114 109 108 108	44.9 c c 44.1 c c c c	38.4 41.8 126.1 36.0 101.1 182.9 380.4 707.1 59.0 62.4 128.0	22.9 95.1 30.9 65.8 129.4 282.5 519.0 50.7 51.3
Deep Cr., above Adel Drew Reservoir.net Inflow		70.0 ^b	105 130	129.2 c	71.9 40.1	66.6 33.9
KLAMATH BASIN						
Sprague R., nr. Chiloquin Upper Klamath Lake, net Inflow 13	294.0 634.0		126 130	561.6 1151.2	282.2 611.0	232.8 486.7

^{*}Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1953 records not available at this time.

7 Observed flow of Ochoco Cr. + Canal + changes in storage of Ochoco Res
Observed flow + changes in storage of Crescent Lake Reservoir.

9 From State Engineer's file #3220a, tabulating total inflow to Crane
Prairie Reservoir and outflow, showing the loss in the Reservoir.

10 Observed flow + changes in storage in Crane Prairie and Wickiup Res.
11 Observed flow + changes in storage in Crane Prairie, Wickiup and
Crescent Lake Reservoirs.

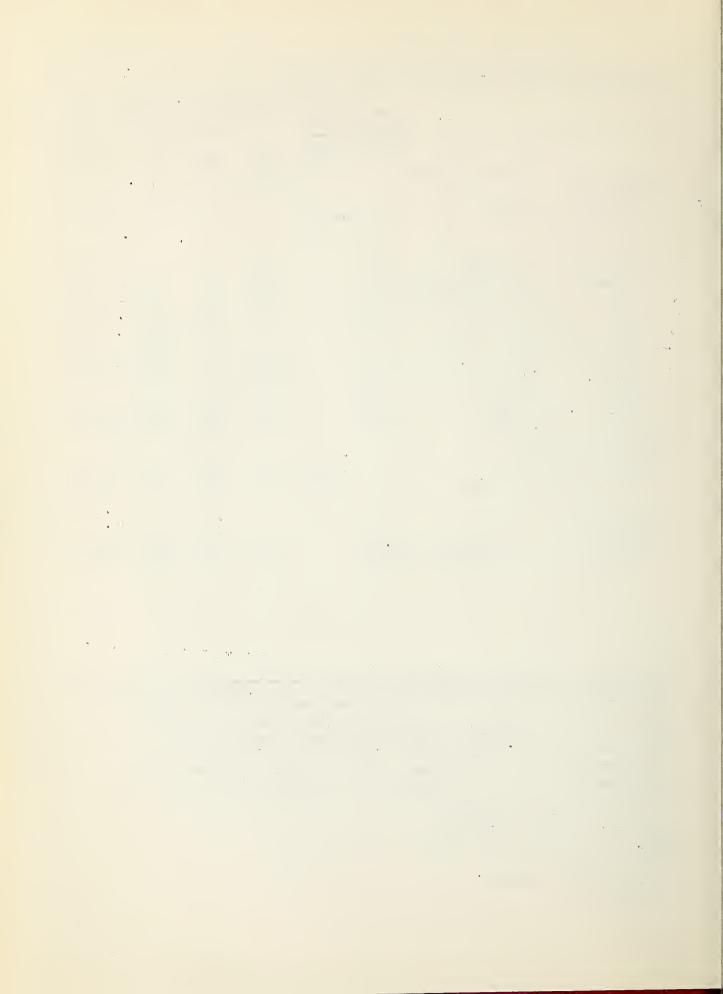
¹² Observed flow + Columbia Southern Canal.

¹³From COPCO records of inflow.

bApril-June

CRecords not available.

a March-July



Streamflow Forecasts - February	1, 1954	(Conti	1)			
	Se	asonal	Stream	nflow in	Thouse	nd A.F.
BASIN AND STREAM	Forecas	t 1954	76	Moasured	l Runof	f*10-Yr.
	· Apr-	Other	10-Yr			
	Sept.	Period	Avg.	1952	1951	1942-51
SOUTHERN OREGON						
Applegate R., nr. Ruch	199.0		178	c	99.9	111.7
Illinois R., at Kerby	262.0		147	241.8	114.4	177.9
Hyatt Res., net Inflow14	7.1		124	9.0	3.8	5.7
Fourmile Lake, net Inflow 15	8.1		106	10.0	3.5	7.6
Little Butte Creek, N. Fk.,						
below Fish Lake 16	16.2		106	c	15.6	15.3
Rogue River above Prospect	384.0		120	477.1	345.5	320.3
Rogue River, Mid.Fk., nr.						
Prospect ¹⁷	90.0		118	С	77.8	76.1
Rogue R., So.Fk., nr. Prospect18	90.0		116	С	76.2	77.9
Rogue R., below South Fork	800.0		116	-e	739.0	686.5
Clearwater R., above Trap Cr.	64.0		98	86.7	-	
No. Umpqua R., below Lake Cr.	175.0		103	217.6	195.7	
No. Umpqua R., at Toketee					Ī	· ·
Falls 19	422.0		107	519.4	445.3	393.8
WILLAMETTE VALLEY						
Row River, near Dorena	103.0		95	С	64.0	108.7
Willamette R., Mid. Fk., at Lowel	11 992.0		112	1105.1	796.9	889.3 ^d
McKenzie R., at McKenzie Bridge			110	674.2	658.4	591.6
McKenzie R., near Vida	1380.0		109	1434.3	1276.0	1266.6
Santiam R., So. Fk., at Waterloo	639.0		106	640.3		600.9
Santiam R., No. Fk., at Mehama	1023.0		114		798.4	
Clackamas R., above Three Lynx	710.0		112	c	681.7	
Willamette R., at Salem	5400.0		105	5607.6	-	5121.8
Clackamas R. nr. Cazadero	934.0		113	С	-	829.8

*Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1953 records not available at this time.

19Sum of observed flow at North Umpqua River above Clearwater River (#7424) and Clearwater River at Mouth (#7423)

¹⁴ Observed flow of Keene Creek at Hyatt Prairie + storage changes + 1600 a.f. for estimated evaporation during April-September period.

¹⁵ Observed outflow into Cascade Canal + storage changes + 1600 a.f. for estimated evaporation during April-September period

¹⁶ Observed flow plus changes in storage in Fish Lake Reservoir + 90% of

Uascade Canal inflow.

17 Observed flow + Middle Fork Power Canal.

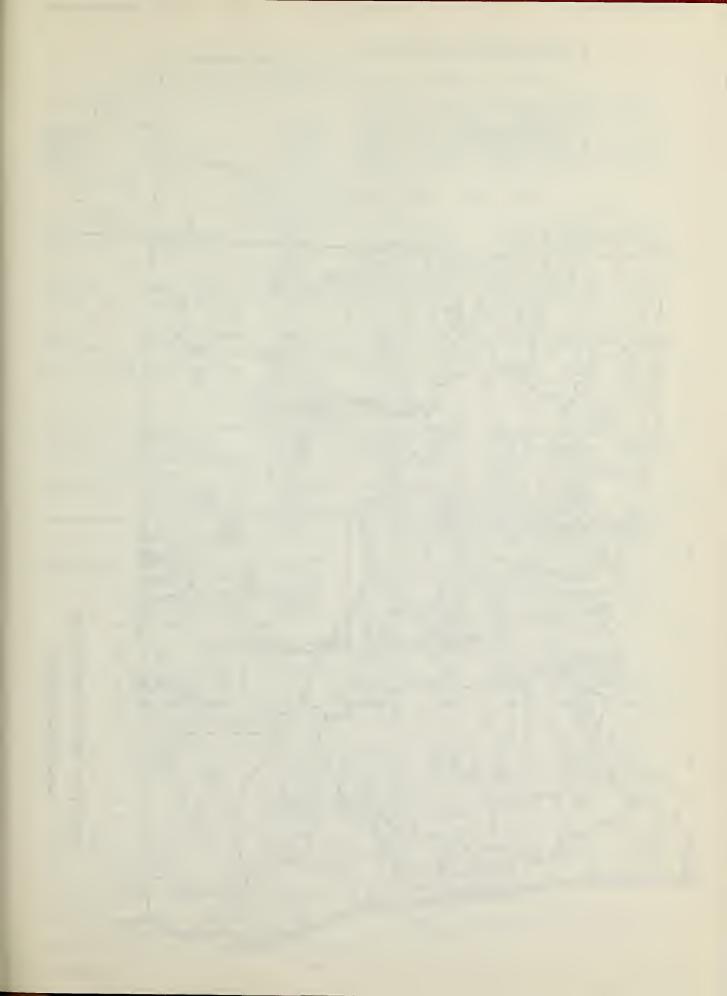
18 Observed flow + South Fork Power Canal.

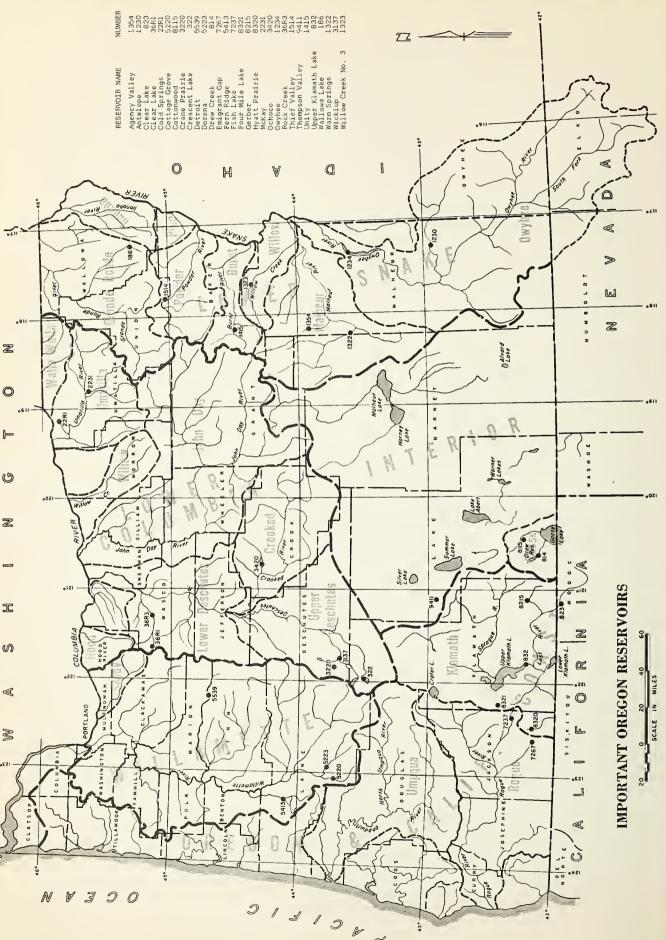
²⁰ Observed flow + changes in storage in any of the following reservoirs which are above the station: Lookout Point, Detroit, Fern Ridge, Cottage Grove, and Dorena.

Records not available

dEstimated as percentage of flow at Eula.

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7-0-10805 - L

BASIN	na a iga amgaydanah dinghi su abidi dahar sa ayagi	USEABLE	THOUS	AND ACRE FEBR	FEET IN UARY FIF		ABOUT
and		CAPACITY	-				O-Yr.Avg.
STREAM	RESERVOIR	(M.A.F.)	1954	1953	1952	1951	1942-51
	UPF	ER COLUMBI	A DRAINA	GE.			
	Lo	wer Snake	in Orego	n			
Owy hee	Antelope	36.5	N.R.	N.R.	N. R.	16.8	3.8d
Charles Marketon	Owyhee	715.0	419.7	512.8	446.7	451.7	445.9
Malheur	Warm Springs	191.0	110.9	128.3	20.6		-
	Agency Valley	60,0	22.3	24.4	15.7	13.6	32.9
Burnt	Unity	25.2	3.6	5.7	5.4	8.8	8.0
Grande Rond	le Wallowa Lake	40,9	33.1	27.3	10,6	18.8	20.3
	LOW	ER COLUMBIA	A DRAINA	GE_			
Umatilla	McKay	74.0	71 O	22.7	21 /	57.1	41.3
Umaciiia	Cold Springs	50.0	31.2 29.4	22.7 20.0	21.4 31.5		29.8
	cord shirings	30,0	29.4	20,0	21.0	#T • 1	29.0
Deschutes	Ochoco	46.0	33.8	27.0	23.1	33.7	22.0
**************************************	Crescent Lake	54.9	45.6	52.0	N.R.	52.8	41.7
	Crane Prairie	55.3	47.7		39.3		
	Wickiup	187.3	191.0	157.5	165.3	187.6	87.6 ^f
Willamette	0-th	30.1 ^a		0.3	0.2	0.0	0.1 ^f
WIIISMOCCO		70.5 ^a	4.9	0.1	0.2	0,0	
	Dorena	94.2 ^a	16.3	0.8	1.9	0.1	
	Fern Ridge		78.0	35.5	2.2	42.0	16.5
	Detroit	340.0 ^a	61.8	114.8			
	OREGON AND	CALIFORNIA	A COAST	DRAINAGE			
Rogue	Fish Lake	7.8	6.6	6.5	5.0	5.2	4.4
	Fourmile Lake b	16.1	15.6	12.2	6.2	11.4	6.3
	Emigrant Gap	8.3	8.3	8,6	4.9	6.4	
	Hyatt Prairieb	16.1	12.2	10.4	3,2	4.7	4.6
Klamath	Upper Klamath L.	584.0°	428.2	469.8	366.1	443.7	322.9
****	Gerber	94.0	45.4		23.3		
	Clear Lake	440.2	248.7		77.4		
		INTERIOR DE	RAINAGE				
Goose Lake	Cottonwood	4.1	0.4	0.4	0.0	0.0	0.1g
	Drew	62.5	37.5	46.3		48.0	36.5 h
N.R No R	enort:			943 excep			

aStorage space reserved for flood control.

bBy ditch to Rogue River side from Klamath Drainage.

CBased on gage zero elevation of 4135.0.

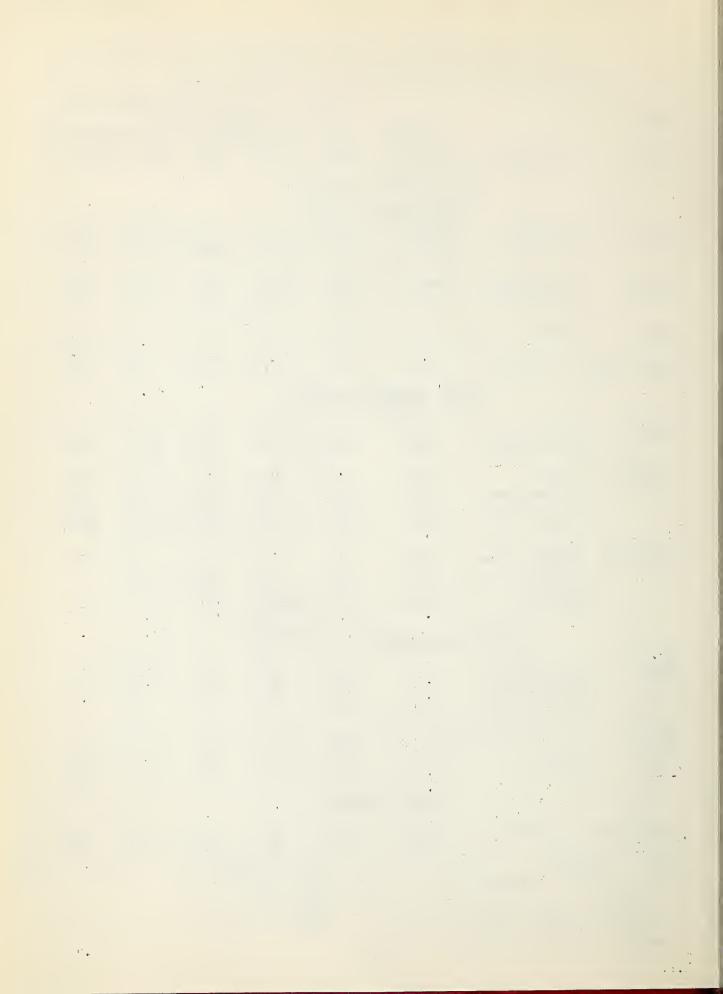
¹⁹⁴³ excepted

e1950 excepted

f1943-1951

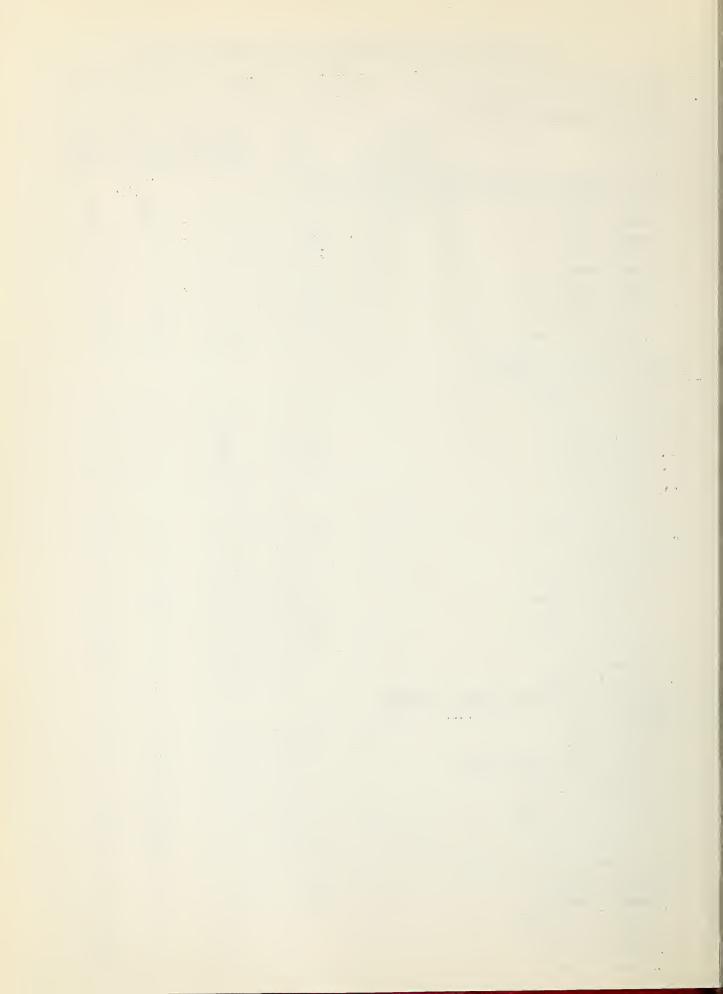
^{§1942, 1946} excepted

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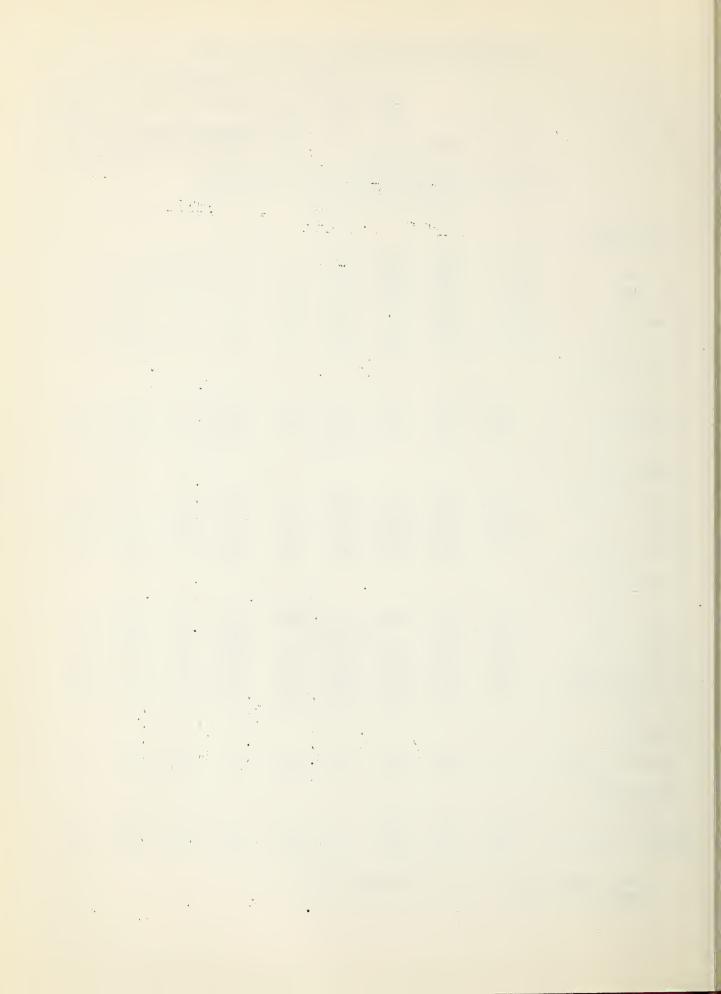
The following tabulation of Oregon stream basins presents the water content of the snow about February 1, 1954, as percent of the same date in 1953 and 1952 and average of record:

1952 and average of record:	No. of	Yrs.	Februar	y 1, 195	4-Water
DRAINAGE	Courses	of		as perc	
	Averaged	Record	1953	1952	Avg.
UPPER COLUMBIA DRAINAGE (Low	ver Snake in	Oregon)			
Owyhee River	5 - 6	4 - 13	77	38	71
Malheur River	2	18 - 22	103	72	133
Burnt River	4	14 - 19	87	62	107
Powder River	5	13 - 15	93	71	112
Pine Creek	1	16	7 5	56	108
Imnaha River	2	12 - 23	91	66	119
Grande Ronde River	9	11 - 25	111	80	117
Wallowa River	2	12 - 23	91	66	119
Catherine Creek	1	16	124	89	117
Main Grande Ronde	6	11 - 25	126	90	115
LOVER COLUMBIA DRAINAGE					
Walla Walla River	1	22	135	88	125
Umatilla River	5	14 - 25	122	82	115
Willow Creek	1	24	82	70	116
John Day River	9	13 - 24	103	78	121
North Fork	5	13 - 24	99	83	118
Middle Fork	3	17 - 19	103	70	119
Main Branch	1	22	105	74	142
South Fork					
Crooked River	3	16 - 24	124	73	132
Deschutes River	4 - 5	16 - 23	116	77	147
Hood River	2	6	204	90	119
Willamette Valley	9 - 10	10 - 23	139	84	148
Sandy River	2	16	135	97	147
Clackamas River	1	16	202	102	166
Santiam Rivers	3	13 - 16	141	77	141
McKenzie River	3	10 - 16	113	79	136
Middle Fork Coast Fork	2	15 - 23	150	76	157
	1	15	161	72	172
Mary's River		11	5250		202
OREGON AND CALIFORNIA COAST					
Umpqua River	3	14 - 24	127	77	158
Rogue River	14	10 - 20	111	75 74	165
Upper Rogue	5	10 - 19	108	74	152
Bear-Little Butte Creek	5	17 - 20	126	82	176
Applegate River	4	15 - 17	102	77	173
Illinois River	2	15	129	67	200
Klamath Lake Basin Williamson River	14 - 15	10 - 27	103	68	147
Sprague River	7 - 8	14 - 27	98	68	138
Gerber-Clear Lake Basin	4 - 5 1	14 - 27 24	192 115	68 75	162 163
INTERIOR DRAINAGE	*	23	110	13	100
Goose Lake Basin	2	15 - 24	106	65	139
Warner Lake Basin	ĩ	15 - 24	99	58	122
Silver Lake Basin	ī	13	94		157
Chewaucan River	ī	24	115	75	163
Harney Basin	2	18 - 21	85	55	111



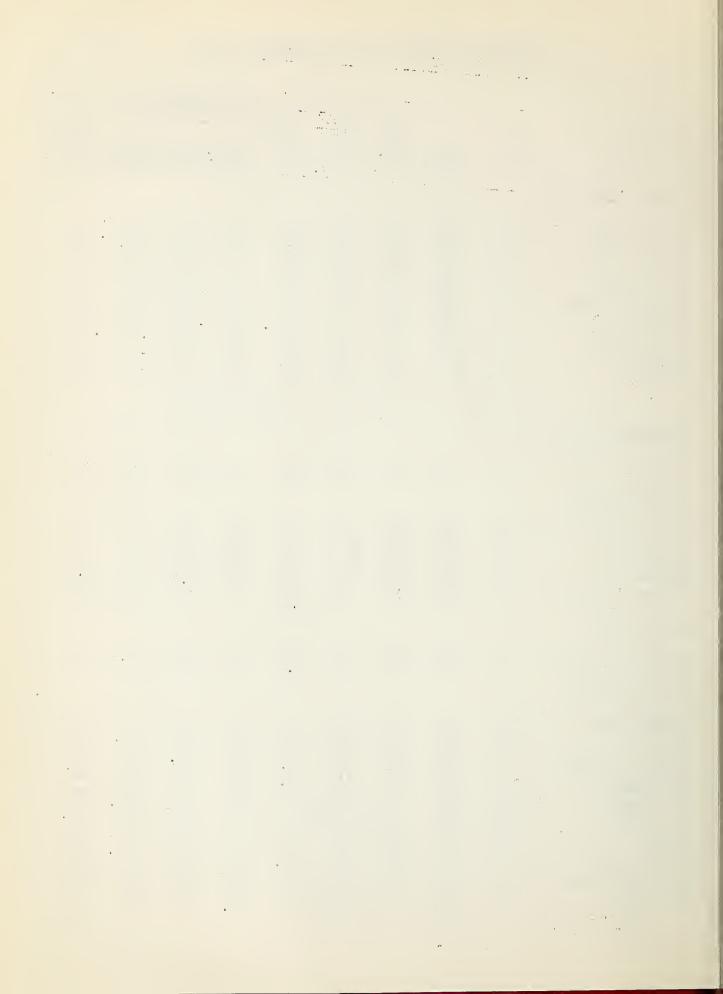
				SN	OW COVER	MEASUI	REMENTS		
				1954			Past Rec	ord	
DRAINAGE BASIN	No.		Date	Snow	Water			,	Years
and	or	,	$\circ f$		Content				
SNOW COURSE	State	Elev.	Survey	(In.)	(In.)	1953	1952	Avg.	Record
<u>u</u> .	<u>PPER</u>		<u>u m b i</u> snake ii		RAIN ON	A G E			
OVYHEE RIVER									
-	Nev.8 Nev.6 Nev.7 Nev.5 Idaho 12 Idaho 13	6800 6700 6700 6600 6400 6340	1/28 1/27 1/28 1/27 1/28 1/31	-	4.6 5.2 4.5 3.2 11.1 7.0	6.6 7.0 6.5 5.0 6.9	13.0 12.5 13.3 8.5 17.9	8.2 8.8 8.0 5.8 10.2 8.9	4 5 4 5 6 13
MALHEUR RIVER			,						
Blue Mtn. Spgs Rock Spring Stinking Water	133 134 135	5900 5100 4800	2/2 2/1 No	47.9 20.2 Repro	5.4	13.5 5.5 0.9b	19.1 8.2 6.9	10.0 4.7 3.4	22 18 16
BURNT RIVER Dooley Mountain *Gold Center Tipton Blue Mtn. Summit	156 249 142 141	5430 5340 5100 5098	2/1 1/30 2/3 2/1	18.5 42.8 26.4 24.7	5.1 11.6 7.4 7.1	8,8 11.7 8,8 6,4	11.9 14.1 13.2 11.0		15 14 17 19
POWDER RIVER									
Anthony Lake Goodrich Lake Bourne Dooley Mountain Eilertson Meadows *Gold Center		5400	1/29 2/1 1/31	35.5	13.5	9.9	38.3 19.9 11.9	8.2	
PINE CREEK									
Schneider Meadows	161	5400	1/30	73.1	22,4	29.7	39.9	20.8	16
IMMAHA RIVER									
*Aneroid Lake No. *Aneroid Lake No.	1 183 2 183A	7480 7000	1/30 1/30	87.6 64.6	28.5 20. 5	30.6 23.5	40.8 33.1		

Not located directly on this drainage area bPartly Estimated.



			,	SN	OW COVER	MEASU	REMENTS		
				1954			Past Re	cord	
DRAINAGE BASIN	No.		Date	Snow	Water				Years
and	or		of	Depth	Content	Water	Conten	t (In.	.) of
SHOW COURSE	State	Elev.	Survey	(In.)	(In.)	1953	1952	Avg.	Record
GRANDE RONDE RIVER									
Aneroid Lake No. 1 Anthony Lake Aneroid Lake No. 2 Camp Carson Moss Spring Beaver Reservoir Tollgate	183 155 183A 187 186A 188 212	7480 7125 7000 5970 5850 5340 5070	1/30 1/29 1/30 1/30 2/2 1/28 1/27	87.6 68.5 64.6 34.9 52.7 37.1 69.7	28.5 20.6 20.5 9.5 18.2 9.4 21.8	30.6 19.2 23.5 5.8 14.7 5.8 16.1	40.8 23.2 33.1 10.2 20.5 8.4 24.9	21.6 19.1 19.6 7.2 15.5 8.4 17.4	23 13 12 11 16 15 22
*Lucky Strike	223	5050	1/28	35.9	8.9	10,5	10,6	8,6	14
Schoolmarm	248	4775	$\frac{2}{1}$	15.9	5.1	1.3	5.1	2.7	6
Meacham	221	4300	1/27	28,6	7.0	4.0	8.0	6.2	25
Ī	<u>OWER</u>	<u>c</u> <u>o</u>	LUM!	BIA	DRA	I N A C	E		
WALLA WALLA RIVER									
Tollgate	212	5070	1/27	69.7	21,8	16.1	24.9	17,4	22
UMATILLA RIVER									
Arbuckle Mountain Tollgate Lucky Strike Meacham Emigrant Springs	241 212 223 221 222	5400 5070 5050 4300 3925	1/30 1/27 1/28 1/27 1/27	34.5 69.7 35.9 28.6 20.8	9.2 21.8 8.9 7.0 5.8	11.2 16.1 10.5 4.0 1.5	13.1 24.9 10.6 8.0 7.8	7.9 17.4 8.6 6.2 5.8	24 22 14 25 25
WILLOW CREEK									
Arbuckle Mountain	241	5400	1/30	34.5	9.2	11.2	13.1	7.9	24
JOHN DAY RIVER									
*Anthony Lake Olive Lake Blue Mtn. Springs Arbuckle Mountain Gold Center *Izee Summit Starr Ridge Tipton Blue Mtn. Summit *Lucky Strike Beech Creek Summit Schoolmarm	155 245 133 241 249 964 247B 142 141 223 246A 248	7125 6000 5900 5400 5340 5293 5156 5100 5098 5050 4800 4775	Not 2/3 2/1 1/28	52.5 47.9 34.5 42.8 Measur	9.2 11.6 red 7.4 7.1 8.9	19.2 14.0 13.5 11.2 11.7 6.2 4.0 8.8 6.4 10.5 5.0	23.2 18.9 19.1 13.1 14.1 10.7 8.7 13.2 11.0 10.6 6.8 5.1	19.1 11.6 10.0 7.9 8.6 6.2 4.4 7.6 6.2 8.6 4.4 2.7	13 18 22 24 14 18 18 17 19 14 17 6

*Not located directly on this drainage area.



				SN	OW COVER	MEASU	REMENTS		
			Command Southern Command or Comma	1954			Past Re	cord	
DRAINAGE BASIN	No.		Date	Snow	Water				Years
and	or		of		Content				
SNOW COURSE	State	Elev.	Survey	(In.)	(In.)	1953	1952	Avg.	Record
CROOKED RIVER									
Derr	343	5670	2/1	33.7	9.7	9.3	10.9	6.8	16
Ochoco Meadows	341	5200	1/30	31.1	7.9	8.4	14.5	7.4	24
Mark's Creek	344	4540	2/2	18.8	6.0	1.4	6.8	3.7	16
		20 20	~/~	20,0	0,0	_, _			
DESCHUTES RIVER									
New Dutchman Flat	324A	6400	1/30	138.8	51,2	39,1	54,1	39.0	5
Windigo Pass ²	744	5800	2/1	115.2	40.7.	38,6	45.0	41,2	3
Charlton Lake	32 7	5750	2/3	77.4	26.3		36.2	13.2	6
Three Creeks Mdws.	331	5600	1/26	74.5	19,0	17.9	25.6	12,4	21
Willamette Pass	323	5600	1/31	117.3	38.7	28.3	47.4	30.7	4
Irish-Taylor	329	5500	2/4	90.9	33,9	26.2	45.2	35.7	2
*Waldo Lake	521A	5500	2/3	74.8	26,6	21.0	35.5	15.5	7
Tangent	3210	5400	1/30	85.2	25.3	23.3	32.3	27.8	2
Cascade Summit	321	4880	1/31	86.8	30.3	21.7	38,2	21.0	23
New Crescent Lake	325 A	4800	1/31	49.0	15,6	13.8		13,8	1
*Chemult	834	4760	1/31	40.8	12.5	15.4	18,7	8.8	17
Crescent Lake	325	4760	2/1	45.7	15,0	13,6		9.1	16
Hogg Pass	351	4755		116.2	39.4	31.8	49.1	27.7	16
Black Pine Spg.	333	4600	1/26	32.2	5.8	4.7	10.7	7.7	2
Caldwell Ranch	326	4400	2/4	38.8	13.4	12.2	15.7	6.8	9
Hungry Flat	3211	4400	1/30	33,7	10.2	7.2	12.0	9.6	2
Clear Lake ³	361	3500	1/28	55,8	12.7		*** 48	10.2	5
HOOD RIVER									
Tilly Jane	432	6000	1/31	115.6	41,9	25.3	49.5	35.8	6
Red Hill	434	4400	Measur	ement :	Delayed	20.4	48.7	35.5	5
Greenpoint Res.	433	3400	2/4	65,6	20.4	5.3	19.4	16.7	6
WILLAMETTE VALLEY	STREAMS								
SANDY RIVER ¹	R. A. J. Combination of the Laboratory of the Company								
Phlox Point	452	5600	2/1	144 8	53,8	43.5	53.8	38.2	16
Still Creek	451	3700		75.1		15.1	27.9	15.6	16
*Clear Lake ³	361	3500	1/28	55.8		10,1	21,0	10.2	3
OTOGI TICKO	901	9900	17.20	00 40	T ()			10.2	J

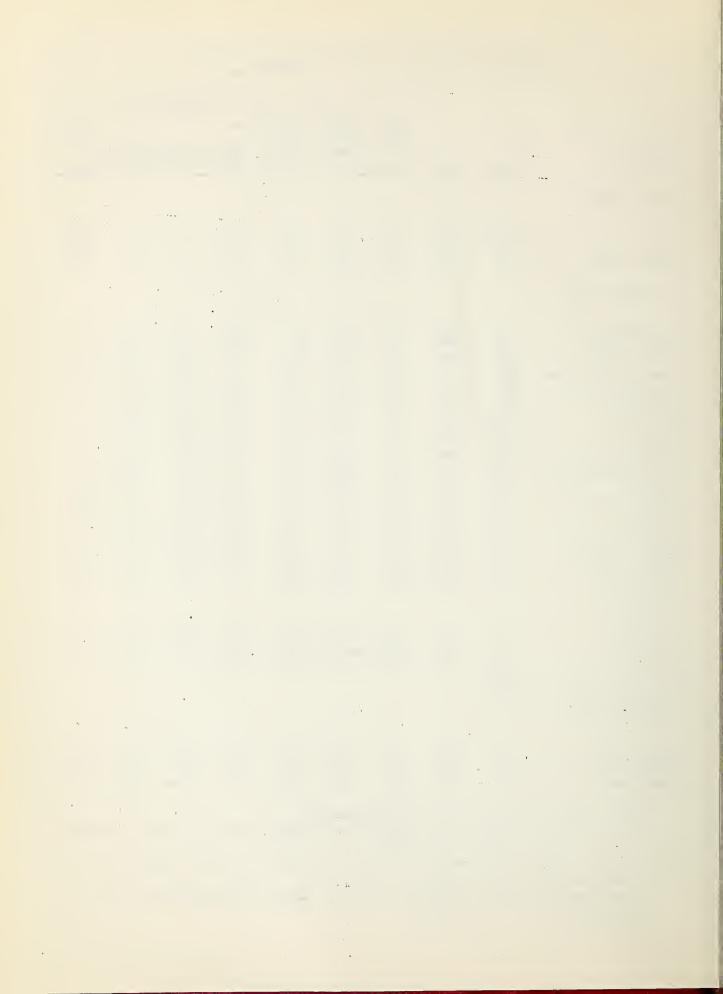
a Tele graphic

Not located directly on this drainage area.

Not strictly a part of the Willamette Drainage; these surveys are indicative of west slope conditions.

²Course revised to 9 samples at 100 ft. Earlier records recomputed and available upon request.

Gourse revised to 11 samples at 100 ft. Earlier records recomputed and available upon request.



				Cht	OW COVER	ME ACT	אור או האו ווים כו		
			-	1954	THE COURT		Past Re		
DRAINAGE BASIN	No.		Date	Snow	Water		2000 110	7001 u	Years
and	or		of		Content	Water	Conter	nt (In.)	
SNOW COURSE	State	Elev.	Survey		(In.)	1953	1952	Avg. F	
WILLAMETTE VALLEY	S TOTE AME				and the second section of the second				
***************************************	3 77 043 777 063	(00110 4)	•						
CLACKAMAS RIVER									
*Clear Lake1	361	3500	1/28	35.8	12.7			10.2	3
Peavine Ridge	591	3500	1/30	65.3	19.8	9,8	19.5	11.9	16
Big Bottom	594	3118	1/31	37.4	9.8	0.0	9.3	5.7	3
Lake Harriet	5 95	2045	1/31	26.5	8.8	0.0	8.7	4.0	3
SANTIAM RIVERS									
Hogg Pass	351	4755	1/30	116.2	39.4	31.8	49,1	27.7	16
Santiam Junction	552	3990	1/30	71.5	26.3	17.4	36.5	18.6	13
Marion Forks	553	2730	1/30	52.7	16.8	8,2	19.1	10.9	13
Breitenbush	551	2325		Measu			9,7	4.4	9
Whitewater Bridge	554	2175	1/30	30.7	8.5	T	10.8	9.3	4
Detroit (new town)	555	1500+	1/30	18.3	4.7	0.0	6.7	4.6	4
Detroit Dam	556	1580	1/30	3.0	1.0	0.0	0.0	1.8	4
Mill City	557	826	1/30	0.0	0.0	0,0	0.0	0.8	4
Snow Line: Approxi	imately	12001							
McKENZIE RIVER									
McKenzie	531	4800	7/30	102,6	37.0	40.2°	42 7	27.8	10
Hogg Pass	351	4755		116.2	39.4	31.8	49.1	27.7	16
Santiam Junction	552	3990	1/30	71.5	26.3	17.4	36.5	18.6	13
Dead Horse Grade	532	3800	1/30	56.7	21.7	10.3	25.3	21.5	4
White Branch Slide	533	2800	1/30	23.8	8.8	0.0	12.3	9.9	5
Lost Creek Ranch	534	1956	1/30	18.3	6.7	0,0	12.7	6.4	2
McKenzie Bridge	535	1372	1/30	4.0	T	0.0	6.7	4.1	5
Vidae	536	800	1/30	0.0	0.0	0.0	0.0	1.0	4
	imately		,	·	·	·	·		
MIDDLE FORK WILL	AMETTE R	IVER							
*Charlton Lake	327	5750	2/3	77.4	26.3		36.2	13,2	6
Willamette Pass	323	5600		117.3	38.7	28.3	47.4		4
Waldo Lake	521A	5500	2/3	74.8	26.6	21.0			7
Cascade Summit	321	4880	1/31	86.8	30.3	21.7	38.2	21.0	23
Champion	522	4500	2/1 1/31	77.8	30.8	19.1	42.7		15
Salt Creek Falls	523	4000	1/31	48.2	16.8	9.6	21.4	17.7	4

[&]quot;Not located directly in this drainage area "OWater Content includes ponded water due to extremely heavy rain over snow." 1 Course revised to 11 samples at 100 ft. Earlier records recomputed and are available upon request.

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				SII	OW COVER	MEASU.	REMENTS		
		,		1954			Past Re	cord	
DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	Date of Surve		Water Content) (In.)	Water 1953	Conten- 1952		Years) of Record
WILLAGETTE VALLEY	STREAMS	(Cont'd)							
MIDDLE FORK WIL:	LAMET TE	RIVER (Co	nt'd)						
Railroad Overpass McCredie Spring Oakridge Meridian Dam Snow Line: Approx	525 526 527	2750 2120 1310 750 1500'	1/31 1/31 1/31 1/31	18.9 7.7 0.0 0.0	6.2 2.0 0.0 0.0	0.0	7.6 3.0 0.0 0.0		5 4 4 3
COAST FORK WILL	LAMETTE	RIVER (Ro	w Rive	er)					
Champion Golden Curry Cr. Weaver Creek Lund Park Layng Creek R.S. Snow Line: Approx	529 5210 5211	4500 3136 2440 1740 1200 1600†	2/1 2/1 2/1 2/1 2/1		30.8 8.0 4.4 3.3 0.0	19,1 2.0 T 0.0 0.0	14.7 4.4 4.4	17.9 10.8 2.0 3.4 0.7	15 4 3 4 5
MARY'S RIVER									
Mary's Peak	541	3620	2/6	26.1	10.5ª	0.2		5.2	11
<u> </u>	<u>A</u> <u>N</u> <u>D</u>	<u>U</u> A L I	F O R	NIA	<u>C O A S</u>	<u> </u>	DRAI	M A	E
ULIPQUA RIVER									
Windigo Pass ¹ Diamond Lake Whaleback Champion North Umpqua Trap Creek	744 743 7217 522 742 741	5800 5315 5140 4500 4215 3800	2/4 1/31 2/1 2/1	69.4 100.6 77.8	16.3ª	38.6 22.3 29.3 19.1 13.1	42.0 42.7	14.7 24.2 17.9	3 24 14 15 7 5
ROGUE RIVER									
Wagner Butte Seven Lakes No.1 Big Red Mtn. Little Red Mtn. *Park Headquarters Scragg Mountain Seven Lakes No. 2	7213 7211 729 7210 838 7220 7212	6900 6800 6500 6500 6450 6200	2/5 2/1 2/2 2/1	95.1 71.1 141.5 To Repor	19,4 51.0 ^a 29.6 ^a 23.9 ^a 43.5 t	16.9 44.3 30.1 28.4 48.4 26.2 35.4	24.1 41.6 29.4 67,7 44.4 48.1	11.1 23.8 19.3 13.4 39.5 18.9 20.4	17 9 16 15 8 11

^{*}Not located directly on this drainage area.

1 Course revised to 9 samples at 100 ft. Earlier records recomputed and available upon request.

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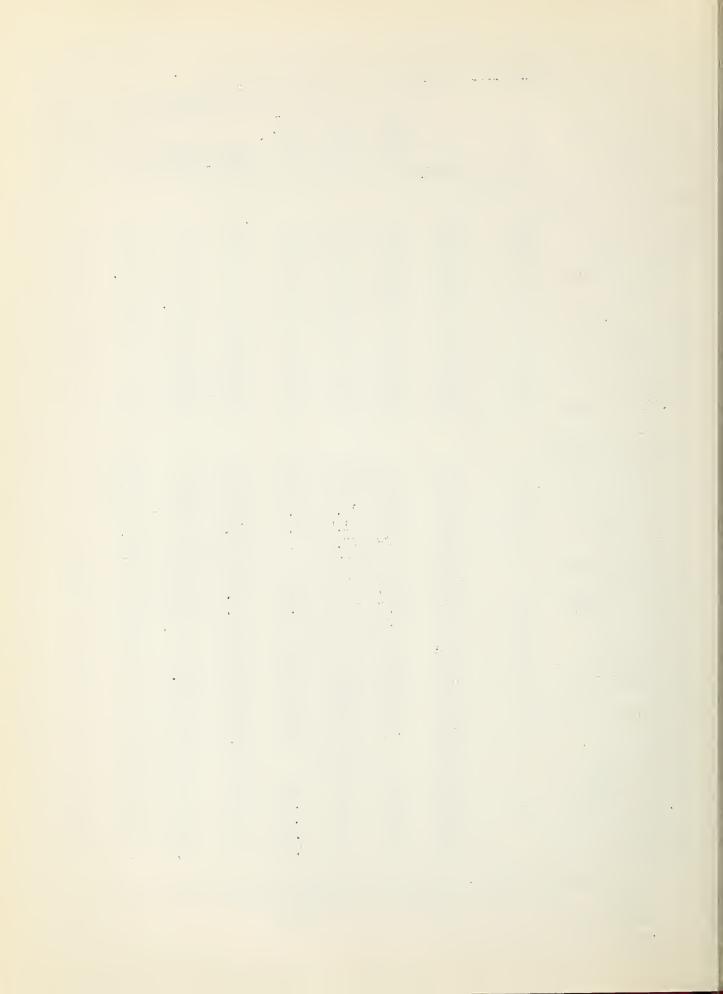
				Cit	Out JOTHER	1971 CTT	מתותים נית		
				1954	OW COVER		Past Re	cond	
DRAINAGE BASIN	No.		Date		Water		ast no	coru	Years
and	or		of		Content	Water	l'onten:	+ (Tn	
SNOW COURSE	State	Elev	Survey			1953	1952		Record
	20200	1310 4.	our voy	(1110)	(1110)	1000	1000	11 18.	1100014
ROGUE RIVER (Conti	<u>a</u>)								
*Annie Spring	831	6018	2/1	111.5	37.5	40.2	54,9	28.3	19
*Fourmile Lake	7223	6000	1/26	77.8	26.4	23.8		23.8	1
Grayback Peak	72 7	6000	2/4	69.7	29.4ª	24.4	38.0	15.3	15
Billie Cr. Divide	722	5300	1/26	78.1	21.3		33.7	14.7	20
Whaleback	7217	5140	1/3,1		33.1	29.3	42.0	24.2	14
Hobart Lake	7221	5010	2/1		11.5	4.4	8.9	6.0	6
*Hyatt Prairie Res.	723	4900	2/4	38.1	11.4	10.4	13.3	7.1	19
Fish Lake	725	4865	1/3,1		14.6	9.2	16.0	8,6	20
Siskiyou Summit	728	4630	2/1	44.9	16.7	11.3	14.9	6.0	17
Althouse	7216	4400	2/1	30.1	10.1	6.2	20.7	4.4	15
Silver Burn	7219	3720	1/31		17.5	13.7	19.1	8,8	16
South Fork Canal	7218	3500	1/31	22.0	6.8	T	8.9	3.0	16
KLAMATH LAKE BASIN									
			- /		0				
Seven Lakes No. 1	7211	6800		138.4	51.0ª	44.3		23.8	9
Park Headquarters	838	6450		141.5	43.5	48.4	67.7	39.5	8
Seven Lakes No. 2	7212	6200		91.4	33.6ª	35.4	48.1	20.4	10
Annie Spring	831	6018		111.5	37.5	40.2	54.9	28.3	19
Fourmile Lake	7223	6000	1/26	77.8	26.4	23.8	***	23.8	1
Strawberry	837	5600		Report		8.1ª	14.0	6.1	10
*Quartz Mtn. (COPCO)		5504		Report		4.0	6.5°	5.4	23
Sun Mountain	836	5350	2/1	75.5	22.8	26.2	33.1	18.2	16
*Quartz Mountain	811	5320	2/2	25.5	8.5	7.4	11.3	5.2	24
Billie Cr. Divide	722	5300	1/26	78.1	21.3	~~	33.7	14.7	20
	Calif.	5200		Report		3,3		2.8	13
Taylor Butte	842	5100	2/2	27.8	7.7	72.0	93 6	3.4	14
Lake of the Woods Hyatt Prairie Res.	835 723	4960 4900	1/31	48.9 38.1	13.4	12.0	21.5	7.5	17 19
_	839		$\frac{2/4}{2/1}$			10.4	13.3		
Gerber Bly 101 Ranch (COP		4850	1	8.8	2.6	0.0	5.1	3.4	4
Chemult	•	4800	$\frac{1}{31}$	12.5	1.8	0.0	3.5	2.0	27 17
Yamsey (COPCO)	834	4760	•	40.8	12.5	15.4	18.7	8.8	
Kirk (COPCO)		4600 4533		Repor		3.6 5.2	7.2 9.5	2.5 5.5	23 27
Beatty (COPCO)		4300		Report					26
Crystal (COPCO)		4200	1/31	5.0	1.0	0.0	0.0	0.7	
Harriman Lodge (CO)	P(10)	4200	$\frac{1}{31}$	29.0	9.5 5.8	10.8	16.9	6.9 3.8	24 27
Chiloquin (COPCO)	. 007	4187	$\frac{1}{31}$	19.0 9.5	5.8 2.9	4.0 T	8.2 6.2	2.2	24
Fort Klamath (COPCO)	2)	4150	1/31	17.8	5.9	2.8	7.9	3.9	2 4 27
TOTO TTAILEOUT (OUT O	1	±100	1/01	T1 0	0.0	~ 0	1.5	0.9	21

Not located directly on this drainage area.

(COPCO) - Water content determined by melting a measured sample (The California Oregon Power Co.'s Station).

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Water content questionable.



				OW COVER				
					Past Record			
No.		Date	Snow	Water				Years
or		of	Depth	Content	Water	Content	; (In.	of (
State	Elev.	Survey	(In.)	(In.)	1953	1952	Avg.	Record
]	NTE	RIO	R DI	RAIN	A G E			
_								
911A	5720	2/1	30.5	9.4	9.5	16.1		15
837	5600	N	Repor	·t				10
	5504	N	o Repor	•t				
811	5320	2/2	25.5	8.5	7.4	11.3	5.2	24
911A	5720	2/1	30,5	9.4	9.5	16,1	7.7	15
811	5320	2/2	25.5	8,5	7.4	11.3	5.2	24
942	4900	1/31	14.8	4.7	5.0		3,0	13
964 961A 247B 134 135	5293 5200 5156 5100 4800	2/1 No. 2/1	19.1 t Measu 20.2	4.5 ared 5.4	4.0 5.5	-	6.2 4.2 4.4 4.7 3.4	18 21 18 18 16
	911A 837 811 911A 911A 911A 811 942	or State Elev. INTE 911A 5720 837 5600 5504 811 5320 911A 5720 811 5320 942 4900 964 5293 961A 5200 247B 5156 134 5100	or State Elev. Survey INTERIO 911A 5720 2/1 837 5600 No. 5504 N. 811 5320 2/2 911A 5720 2/1 811 5320 2/2 942 4900 1/31 964 5293 No. 961A 5200 2/1 247B 5156 No. 134 5100 2/1	1954 Date Snow of Depth State Elev. Survey (In.) I N T E R I O R D I	1954 Date Snow Water Of Depth Content State Elev. Survey (In.) (In.) INTERIOR DRAIN	No. Date Snow Water or of Depth Content Water State Elev. Survey (In.) (In.) 1953	No.	No. or Date Snow Water of Depth Content Water Content (In. State Elev. Survey (In.) (In.) 1953 1952 Avg. INTERIOR DRAINAGE 911A 5720 2/1 30.5 9.4 9.5 16.1 7.7 837 5600 No Report 8.1a 14.0 6.1 5504 No Report 4.0 6.5c 5.4 811 5320 2/2 25.5 8.5 7.4 11.3 5.2 911A 5720 2/1 30.5 9.4 9.5 16.1 7.7 831 5320 2/2 25.5 8.5 7.4 11.3 5.2 91A 5720 2/1 30.5 9.4 9.5 16.1 7.7 6.2 942 4900 1/31 14.8 4.7 5.0 3.0 964 5293 Not Measured 6.2 10.7 6.2 961A 5200 2/1 19.1 4.5 6.2 9.8 4.2 247B 5156 Not Measured 4.0 8.7 4.4 134 5100 2/1 20.2 5.4 5.5 8.2 4.7

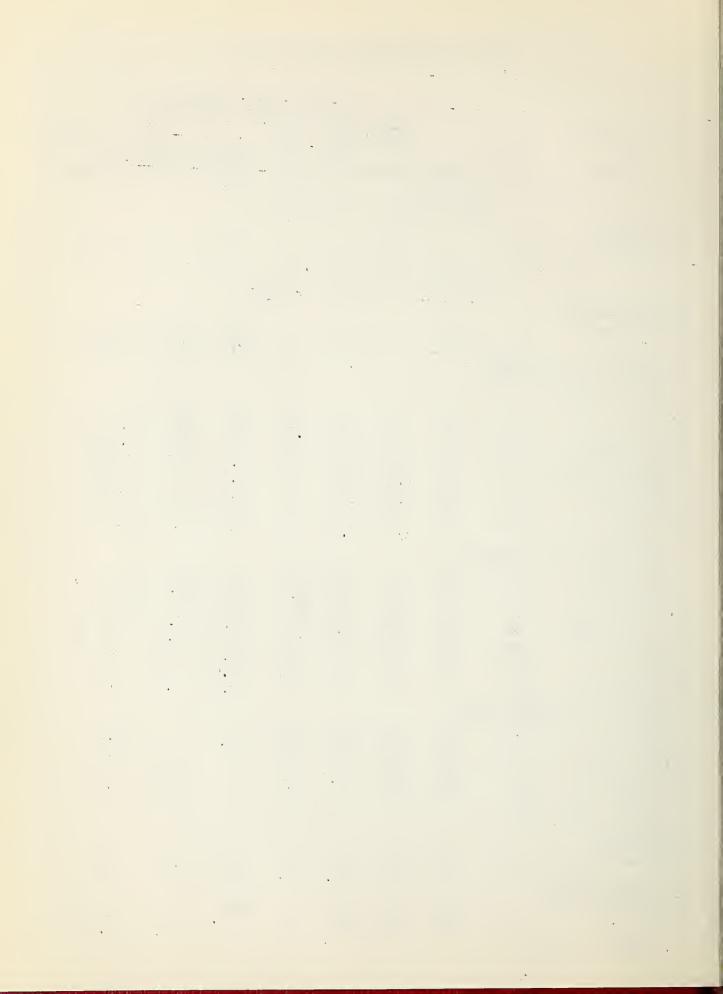
Not located directly on this drainage area. (COPCO) - Water content determined by melting a measured sample (The California Oregon Power Go.'s Station).

aTelegraphic bPartly estimated

Water content questionable

,: 1.,

			OW COVER	MEASUREMENTS					
DRAINAGE BASIN	No.		Date	1954 Snow	Water		Past Rec		Years
and	or		cf	Depth	Content			(In.)	of
SNOW COURSE	State	Elev.	Survey	(In.)	(In.)	1953	1952	Avg.R	ecord
	J	ANU	ARY	1,	1954				
ROGUE RIVER									
South Fork Canal	7218	3500	12/31	0.0	0.0	5.3 ^b	3,4	1.5	15
	J A	NUA	RY	15,	1954	<u>1</u>			
DESCHUTES RIVER						-			
Cascade Summit	321	4880				18.3	32.0	22.2	3
Hogg Pass	351	4755	1/16	81.7	17.0	27.4	39.2	30.1	3
WILLAMETTE VALLEY	STREAMS								
SANTIAM RIVERS									
Hogg Pass	351	4755	1/16	81.7	17.0	27.4	39.2	30,1	3
Sentiam Junction Marion Forks	552 553	3990 2730	1/16 1/16	55.4 30.0	16.5 6.8	15.0 7.2	27.5 13.2	18.5 8.8	3 3
Whitewater Bridge	553 554	2175	1/16	13.3	3.6	0.0	7.5	7.5	5
Detroit (new town)		1500+		2.0	0.5 ^b	0.0	4.3	4.0	5
Detroit Dam	556	1580	1/16	T	T	0.0	4.3	3.3	4
Mill City	557	826	1/16	0.0	0.0	0.0	0.0	0.9	3
Snow Line: About									
MIDDLE FORK WILL		VER	- /						
Cascade Summit	321	4880	1/16	83.0	19.7	18.3	32.0	22.2	3
Champion Salt Creek Falls	522 523	4500 4000	1/15 1/16	50.3 38.3	11.6 12.2	19.5 10.0	17.4	22.1	4 5
Railroad Overpass	524	2750	1/16	5.2	1.0	0.0	5.0	4.2	5
McCredie Spring	525	2121	1/16	1.0	0.5 ^b	0.0	2.0	2.1	5
Oakridge	526	1310	1/16	1.0	0.5 ^b	0.0	0.4	0.7	4
Meridian Dam		750	1/16	0.0	0.0	0.0	0.0	0.0	2
Snow Line: About COAST FORK WILLA		TTD							
Champion	522	ьк 4500	1/15	50.3	11.6	19.5	em em	22.1	4
Golden Curry Creek		3136	, ,		2.0			8.0	2
Weaver Creek	529	2440		7.0	1.0		5.0		2
Lund Park	5210	1740	1/15	T	T		3.6	3.9	3
Layng Creek R.S. Snow Line: About		1200	1/15	0.0	0.0			1.5	3
ROGUE RIVER									
Siskiyou Summit	728	4630	1/16	25.5	4.2	14.0	13.1	8.7	5
KLAMATH LAKE BASIN			•						
Lake of the Woods	835	4960	1/14	21.8	6.9	12.2	13.3	12.8	2
Gerber	839	4850		9.1	1.0		5.0		3
bpartly estim	ated								



OREGON PRECIPITATIONa

DRAINAGE		FAL SeptOct	Dec -Jan	DecJan. 1953-154					
DIVISIONS		Average	Departure b	The second secon	Departure b				
Southeastern		1,50	-1,15	2.05	-0.52				
Blue Mountains		3,15	-1.76	4.73	+0.05				
Wallowa Mountains		3,24	-1.58	4.94	+1.33				
Lower Columbia		3.58	-1.79	8.76	+3.84				
Upper Deschutes		3,49	-0,45	6.05	+2.23				
Willamette Valley		15,11	-1.93	24.37	+8.70				
Southwestern		9.34	+1.71	12.06	+3.70				
South-Central		3,51	-0.39	4.35	+0.80				
Southeastern -	Owyhee	and lowe	r Malheur di	rainages.					
Blue Mountains -	Upper valleys of the Umatilla, John Day and Malheur, and the Powder, Burnt and Silvies drainages.								
Wallowa Mountains - Imnaha, Wallowa and Catherine drainages.									
Lower Columbia -	Lower valleys of the Walla Walla, Umatilla, John Day and Deschutes, and the Hood and Sandy drainages.								
Upper Deschutes -	r Deschutes - Upper Deschutes and Crooked drainages.								
Willamette Valley -	- All Willamette drainages.								
Southwestern -	- Umpqua, Rogue and Williamson drainages.								
	_								

- Sprague, Lost and Interior Basin drainages.

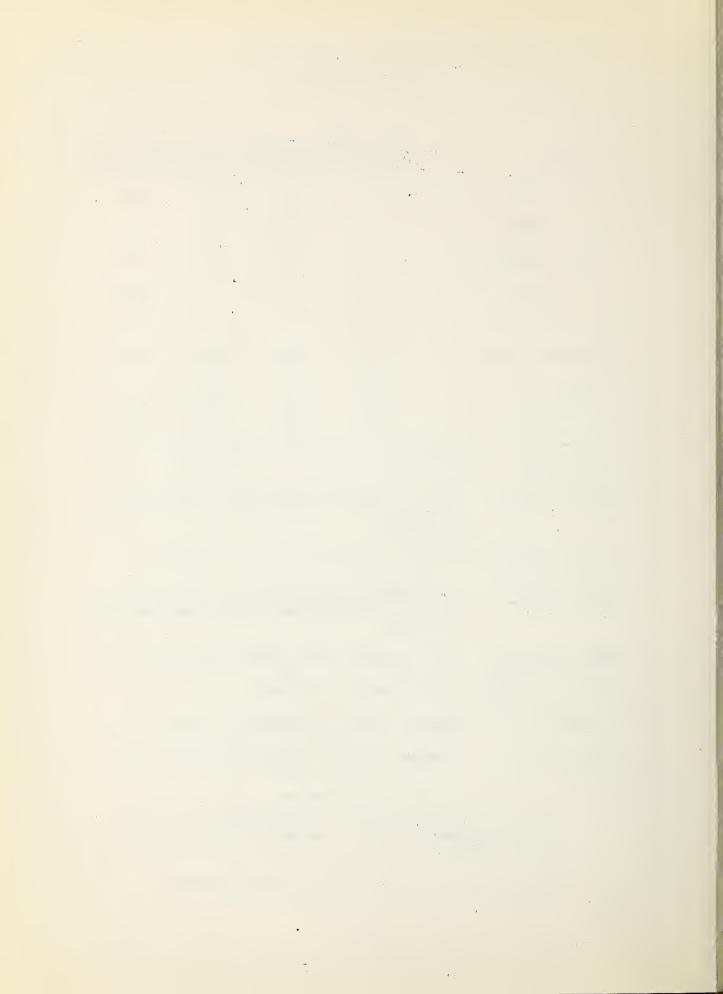
South-Central

Preliminary analysis by U. S. Weather Bureau from data furnished by Meteorological Services of Canada and U. S. Weather Bureau.

b - Departure from 10-year (1942-51) drainage division average.

Note - Precipitation shown in inches.

The Fall averages and December averages shown last month (January 1, 1954) were in error.



The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State Highway Engineers
Soil Conservation Districts of Oregon

FEDERAL

Cooperative Extension Service
Forest Service
Soil Conservation Service
Department of Commerce
Weather Bureau
Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Indian Service
National Park Service
Department of National Defense
Army Engineer Corps

Department of Agriculture

PUBLIC UTILITIES

California-Pacific Utilities Company Pacific Power and Light Company Portland General Electric Company The California Oregon Power Company

MUNICIPALITIES

City of Baker City of La Grande City of The Dalles City of Walla Walla

IRRIGATION DISTRICTS

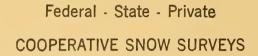
Associated Ditch Companies
Central Oregon Irrigation District
Deschutes County Municipal Improvement District
East Fork Irrigation District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview Water Users, Incorporated
Medford Irrigation District
Ochoco Irrigation District
Rogue River Irrigation District
Talent Irrigation District
Vale-Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

Amalgamated Sugar Company
The Crag Rats, Hood River, Oregon

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Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"